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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHAU, COREY P

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,118

Applicant(s)

JOYNES, GEORGE MALCOLM
SWIFT

Examiner

Corey P. Chau

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 65-70, 73-90 and 92-96 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 65-70, 73-90, and 92-96 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 65, 75-76, 83, and 89-90 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5018203 to Sawyers et al. (hereafter as Sawyers).

3. Regarding Claim 65, Sawyers discloses an apparatus for reducing noise in an area proximate an ear of an observer (column 2, lines 1-20), comprising;

a transducer arranged to transduce noise sound in said area into a signal (column 2, lines 43-65; column 3, lines 34-44);

a measuring device arranged to measure the signal from the transducer (column 3, lines 34-44); and a sound cancellation device configured to receive information from the measuring device, generate a cancellation sound of approximately an equal intensity and opposite polarity to said noise sound, and transmit said cancellation sound to said area thereby reducing the amount of noise sound audible in said area by said observer (column 2, lines 43-65; column 3, lines 45-59) wherein,

the transducer is on the body of the observer (column 2, lines 1-20);

the measuring device is remote from the transducer (Figs. 1 and 6);

the transducer wirelessly transmits the signal (Figs. 1 and 6; column 3, lines 34-44), representing sound in the vicinity of the ear canal (column 2, lines 1-20), to the measuring device;

the wireless transmission of the signal takes the form of light reflected from the transducer (Figs. 1 and 6; column 3, lines 34-44); and

said measurement device is an optical device (Figs. 1 and 6; column 3, lines 34-44).

4. All elements of Claim 75 are comprehended by Claim 65. Claim 75 is rejected for the reasons stated above apropos to Claim 65.

5. All elements of Claim 76 are comprehended by Claim 65. Claim 76 is rejected for the reasons stated above apropos to Claim 65.

6. Claim 83 is essentially similar to Claim 65 and is rejected for the reasons stated above apropos to Claim 65.

7. All elements of Claim 89 are comprehended by Claims 65 and 83. Claim 89 is rejected for the reasons stated above apropos to Claims 65 and 83.

8. All elements of Claim 90 are comprehended by Claims 65 and 83. Claim 90 is rejected for the reasons stated above apropos to Claims 65 and 83.

9. Claims 65, 68-69, 75-77, 81-83, 86-87, 89-90, 93, and 96 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5711308 to Singer.

10. Regarding Claim 65, Singer discloses an apparatus for reducing noise in an area proximate an ear of an observer (Fig. 4 and 6), comprising;

a transducer arranged to transduce noise sound in said area into a signal (Figs 4 and 6; abstract);

a measuring device arranged to measure the signal from the transducer (column 3, line 65 to column 4, line 25); and a sound cancellation device configured to receive information from the measuring device, generate a cancellation sound of approximately an equal intensity and opposite polarity to said noise sound, and transmit said cancellation sound to said area thereby reducing the amount of noise sound audible in said area by said observer (column 5,, lines 41-49; column 7, lines 1-40; column 9, lines 24-28)) wherein,

the transducer is on the body of the observer (column 9, lines 1-3);

the measuring device is remote from the transducer (Figs. 4 and 6);

the transducer wirelessly transmits the signal (Figs. 4-6; column 3, line 65 to column 4, line 67), representing sound in the vicinity of the ear canal (Figs. 4-6; column 3, line 65 to column 4, line 67), to the measuring device;

the wireless transmission of the signal takes the form of light reflected from the transducer (Figs. 4-6; column 3, line 65 to column 4, line 67); and said measurement device is an optical device (Figs. 4-6; column 3, line 65 to column 4, line 67).

11. Regarding Claim 68, Singer as modified discloses said transducer comprises human skin (Figs. 4 and 6).

12. Regarding Claim 69, Singer discloses said skin comprises a part of the ear of the observer (Figs. 4 and 6)

13. All elements of Claim 75 are comprehended by Claim 65. Claim 75 is rejected for the reasons stated above apropos to Claim 65.

14. All elements of Claim 76 are comprehended by Claim 65. Claim 76 is rejected for the reasons stated above apropos to Claim 65.

15. Regarding Claim 77, Singer discloses a filter disposed between said measuring device and said cancellation device, and arranged to pass a range of frequencies, thereby enabling said apparatus to cancel noise sound based on a frequency of said noise (Fig. 1; column 5, lines 17-29).

16. Regarding Claim 81, Singer discloses a further measuring device disposed remote from said area and arranged to measure background noise proximate to said area, said background noise being communicated to said sound cancellation device to facilitate reducing the amount of noise audible in said area (Fig. 9)

17. Regarding Claim 82, Singer discloses said further measuring device is a microphone (column 9, lines 29-33).

18. Claim 83 is essentially similar to Claim 65 and is rejected for the reasons stated above apropos to Claim 65.

19. Claim 86 is essentially similar to Claim 68 and is rejected for the reasons stated above apropos to Claim 68.

20. Claim 87 is essentially similar to Claim 69 and is rejected for the reasons stated above apropos to Claim 69.

21. All elements of Claim 89 are comprehended by Claims 65 and 83. Claim 89 is rejected for the reasons stated above apropos to Claims 65 and 83.

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22. All elements of Claim 90 are comprehended by Claims 65 and 83. Claim 90 is rejected for the reasons stated above apropos to Claims 65 and 83.

23. Claim 93 is essentially similar to Claim 77 and is rejected for the reasons stated above apropos to Claim 77.

24. Claim 96 is essentially similar to Claim 81 and is rejected for the reasons stated above apropos to Claim 81.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 66-67 and 84-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5711308 to Singer in view of in view of U.S. Patent No. 5359887 to Schwab et al. (hereafter as Schwab).

26. Regarding Claim 66, Cain as modified does not expressly disclose said transducer includes pressure sensitive paint. Schwab discloses a pressure sensitive paint utilized to enhance measurement of pressure (column 3, line 48 to column 4, line 15). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Singer with the teaching of Schwab to utilize a pressure sensitive paint on the ear to enhance measurement of pressure.

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27. All elements of Claim 67 are comprehended by Claim 66. Claim 67 is rejected for the reasons stated above apropos to Claim 66.

28. Claim 84 is essentially similar to Claim 66 and is rejected for the reasons stated above apropos to Claim 66.

29. Claim 85 is essentially similar to Claim 67 and is rejected for the reasons stated above apropos to Claim 67.

30. Claims 70 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5711308 to Singer.

31. Regarding Claim 70, Singer as modified does not expressly disclose said skin is a part of one of a human pinna, a human concha, and a human cavum. However, it would have been obvious to one having ordinary skill in the art to utilize any part of the human ear such as the human pinna, a human concha, or a human cavum in order to obtain desired results.

32. Claim 88 is essentially similar to Claim 70 and is rejected for the reasons stated above apropos to Claim 70.

33. Claim 73-74 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5711308 to Singer in view of U.S. Patent No. 5721783 to Anderson.

34. Regarding Claim 73, Singer discloses the support is contained within a wearable apparatus (column 5, lines 17-29), but only generally; no specific hardware is taught.

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Therefore it would have been obvious to one having ordinary skill to seek known wearable apparatus. Anderson for example, discloses a wearable apparatus such as jewelry (e.g., earring) (column 3, lines 60-67). It would have been obvious to one having ordinary skill in the art to employ any known wearable apparatus, such as that of Anderson. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Singer with the teaching of Anderson to utilize jewelry (e.g., earring) as the wearable apparatus.

35. All elements of Claim 74 are comprehended by Claim 73. Claim 74 is rejected for the reasons stated above apropos to Claim 73.

36. Claim 92 is essentially similar to Claim 73 and is rejected for the reasons stated above apropos to Claim 73.

37. Claims 78-80 and 94-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5711308 to Singer in view of U.S. Patent No. 5133017 to Cain et al. (hereafter as Cain).

38. Regarding Claim 78, Singer does not expressly disclose a tracking device arranged to search for said transducer, to acquire a location of said transducer, and to track said location of said transducer, said tracking device being further arranged to communicate said location of said transducer to said measuring device. Cain discloses sonic emitter may also be used to emit an audio tone which is detected by sonic detectors which are positioned on an opposite sides of the sonic emitter. By detecting the amplitude of the audio signal produced by emitter at the various points where

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detectors are positioned a relatively simple analysis such as locating the detector receiving the minimum amplitude will reveal the position of the head of an individual using the inventive headrest. In this manner head movement may be compensated for while maintaining effective noise cancellation (Fig. 10; column 7, lines 18-65). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Singer with the teaching of Cain to incorporate sonic emitter may also be used to emit an audio tone which is detected by sonic detectors which are positioned on an opposite sides of the sonic emitter (i.e. a tracking device arranged to search for said transducer) in order to reveal the position of the head of an individual using the inventive headrest (i.e. to acquire a location of said transducer, and to track said location of said transducer) which will compensate for head movement, while maintaining effective noise cancellation (i.e. said tracking device being further arranged to communicate said location of said transducer to said measuring device).

1. All elements of Claim 79 are comprehended by Claim 78. Claim 79 is rejected for the reasons stated above apropos to Claim 78.

2. Regarding Claim 80, Cain as modified does not expressly disclose said tracking device is a video tracking device. However it would have been obvious to one having ordinary skill in the art to utilize any well-known tracking device, such as a video tracking device to track location of the transducer in order to utilize the desired system configuration.

39. Claim 94 is essentially similar to Claim 78 and is rejected for the reasons stated above apropos to Claim 78.

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40. Claim 95 is essentially similar to Claim 80 and is rejected for the reasons stated above apropos to Claim 80.

Response to Arguments

41. Applicant's arguments with respect to claims 65-70, 73-90, and 92-96 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5612492 to Schwab et al. discloses formulations and method of use of pressure sensitive paint.

U.S. Patent No. 5420930 to Shugart discloses jewelry.

U.S. Patent No. 5533130 to Station discloses jewelry.

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P. Chau whose telephone number is (571)272-7514. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 23, 2006
CPC



HUYEN LE
PRIMARY EXAMINER